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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/186,270	11/04/1998	BRIAN DOYLE GANTT	30566.57USRE	1588

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GATES & COOPER LLP  
HOWARD HUGHES CENTER  
6701 CENTER DRIVE WEST, SUITE 1050  
LOS ANGELES, CA 90045

EXAMINER

SEALEY, LANCE W

ART UNIT

PAPER NUMBER

2671

DATE MAILED: 03/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/186,270

Applicant(s)

GANTT, BRIAN DOYLE

Examiner

Lance W. Sealey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-81 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4,14,15,21,24,25,28,38,39,45,48-51 and 65-68 is/are rejected.
- 7) ☒ Claim(s) 2,3,5-13,16-20,22,23,26,27,29-44,46,47,52-64 and 69-81 is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

**Attachment(s)**

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_\_.

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***Allowable Subject Matter***

1. Claims 2-3, 5-13, 16-20, 22-23, 26-27, 29-44, 46-47, 52-64 and 69-81 are objected to as being dependent upon rejected base claims, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 4, 21, 25, 28, 45, 48-51 and 65-68 are rejected under 35 U.S.C. 103(a) as being unpatentable by Venolia (U.S. Pat. No. 5,463,722).

4. Venolia, in disclosing automatic alignment of objects in two-dimensional and three-dimensional display space using an alignment field gradient, also discloses, with respect to claims 1, 25, 48 and 65, a method of operating a computer aided design system in presumptive mode, comprising the steps of:

- moving a selected graphic object (Venolia's "first object") relative to a graphic pointing symbol (col.5, ll.5-8);
- determining when the selected graphic object is within a predetermined proximity of an

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underlying graphic object (Venolia's "second object", col.5, ll.8-11);

- manipulating the selected graphic object into a geometric relationship with the underlying graphic object according to predetermined geometric rules ("calculating a current position for the first object which is displayed from a cursor dictated position by an amount which is determined as if the first object was under the gradual influence of an alignment field emanating from the second object", col.5, ll.8-11); and
- dynamically updating the geometric relationship based on movement of the graphic pointing symbol while the graphic pointing symbol remains within the predetermined proximity of the underlying graphic object (col.5, ll.8-11; this element of the claim is implied because if the position of the cursor is related to the position of the first object, and the position of the first object is related to the position of the second object through the alignment field, the geometric relationship of the cursor to the second object is dynamically updated ).

5. Therefore, it would have been obvious to a person with ordinary skill in the art at the time this invention was made to determine when the selected graphic object is within a predetermined proximity of an underlying graphic object, manipulate the selected graphic object into a geometric relationship with the underlying graphic object according to predetermined geometric rules, and dynamically update the geometric relationship based on movement of the graphic pointing symbol while the graphic pointing symbol remains within the predetermined proximity of the underlying graphic object. This would facilitate manipulation of objects in 3D space (Venolia, col.3, ll.3-20).

6. The other claims in this rejection will now be considered. Concerning claims 4 and 28,

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Ventolia discloses positioning the selected graphic object at a predetermined offset relative to the underlying graphic object as part of the manipulating step (col.5, ll.8-11).

7. Regarding claims 21 and 45, Ventolia discloses a method of operating a computer aided design system, comprising the steps of:

- providing at least one graphic object to be selected for insertion into a graphic design (col.9, ll.30-37);
- displaying and moving a selected graphic object with a graphic cursor moved within the graphic design (col.10, ll.21-27);
- when the selected graphic object is within a predetermined proximity with respect to one or more underlying graphic objects, automatically manipulating the selected graphic object into a geometric relationship with the underlying graphic object (col.5, ll.8-11); and
- dynamically updating the geometric relationship based on movement of the graphic cursor while the graphic cursor remains within the predetermined proximity of the underlying graphic object (col.5, ll.8-11; as stated in paragraph 5 above, this element is implied).

8. With respect to claims 49 and 66, Ventolia discloses computer input device control of a pointing symbol (col.5, ll.5-8).

9. Concerning claims 50 and 67, Ventolia discloses the points of interest being determined by predefined rules (col.5, ll.5-8).

10. Regarding claims 51 and 68, Ventolia discloses the predefined rules limiting selection of the first graphic object (col.10, ll.21-27).

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11. In view of the foregoing, it is concluded that the above claims have been rendered unpatentable by Venolia.

12. Claims 14-15 and 38-39 are rejected, under 35 U.S.C. 103(a) as being unpatentable by Venolia in view of Eckart (U.S. Pat. No. 5,408,606).

13. Venolia does not disclose, with respect to claims 14-15 and 38-39, partially deleting only selected ones of a plurality of graphic objects corresponding to the objects' respective clip regions. However, this is disclosed by the Eckart computer graphics system at col.1, ll.26-33.

14. Therefore, it would have been obvious to a person with ordinary skill in the art at the time this invention was made to arrange for partial deletion of only selected ones of a plurality of graphic objects corresponding to the objects' respective clip regions. Such a combination of these two references would enhance clarity and eliminate waste by cutting away parts of objects that lie outside the viewport (Eckart, col.1, ll.31-33).

15. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable by Venolia in view of Rostoker et al. ("Rostoker," U.S. Pat. No. 5,623,418).

16. Venolia does not disclose a database/file structure in its CAD system. Such a structure is disclosed by the Rostoker CAD system:

- The display device is disclosed at **1606** in FIG.29;
- The data base, the object files and the design files are disclosed at col.9., ll.27-33--the object files perform the same function as the applicants' design files; and
- The processor is disclosed at **2401** in FIG.29.

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17. Therefore, it would have been obvious to a person with ordinary skill in the art at the time this invention was made to arrange for a database structure. Such a combination of these two references would ensure that the object simulation structures are always current and representative of the schematic diagram as displayed at a given moment (Rostoker, col.10, ll.18-21).

***Response to Remarks***

18. The applicants assert that Venolia does not teach dynamically updating the geometric relationship based on movement of the graphic pointing symbol while the graphic pointing symbol remains within the predetermined proximity of the underlying graphic object, as disclosed by claim 1. However this element is implied, as explained in paragraph 5 above; that is why the rejection of claim 1 has been changed from a 35 U.S.C. 102 to a 35 U.S.C. 103 rejection, and this is a non-final action.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the Office should be directed to the examiner, Lance Sealey, whose telephone number is (703) 305-0026. He can be reached from 7:00 am-3:30 pm EST Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Zimmerman, can be reached at (703) 305-9798.

**Any response to this action should be mailed to:**

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Commissioner of Patents and Trademarks

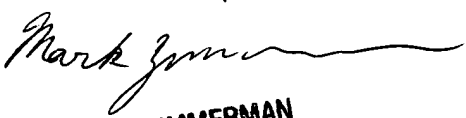
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or faxed to:

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding  
should be directed to the Technology Center 2600 Customer Service Office at (703) 306-0377.

  
**MARK ZIMMERMAN**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**